PRACTICE SPECIFICATION

UPLAND WILDLIFE HABITAT MANAGEMENT

WILDLIFE FOOD PLOT

1. SCOPE

Good wildlife habitat provides cover, water, and food for the desired wildlife species. Several Nebraska wildlife species including ring-necked pheasant, Northern bobwhite quail, gray (Hungarian) partridge, sandhill cranes, white-tailed and mule deer, wild turkey, certain songbirds, mourning doves, squirrels, rabbits, ducks, geese, and grouse use the seeds or foliage of agricultural crops. Every summer and fall, conventionally managed croplands provide abundant amounts of food acceptable to these species. However, because of modern and efficient harvesting equipment, fall and spring tillage, relatively weed-free cropland, and adverse weather conditions, wildlife food may be limiting in and around croplands during the winter and early spring seasons. Winter can be an especially critical time for wildlife survival since wildlife have higher energy needs during cold weather and often the source of that energy (food), is in short supply.

If food is identified as a limiting factor during these seasons, a wildlife food plot may be a good tool for improving and maintaining wildlife populations. A wildlife food plot is a planting of annual or perennial plants that are selected, located, and managed to provide wildlife food during critical periods.

Adequate wildlife cover for reproduction, escape, and thermal protection, is usually more limiting than wildlife food. Before deciding to establish food plots, ensure that the quantity and quality of cover is or will be adequate.

In some circumstances, food plots will concentrate wildlife to the extent that the spread of disease significantly impacts a species of wildlife. Therefore, the use of multiple food plots spread across a broad area is recommended to minimize the concentration of wildlife at food plot sites.

2. PLANNING CONSIDERATIONS – FOOD PLOT LOCATION

Locate wildlife food plots within ¼ mile from good winter cover. Food plots for deer and grouse can be further from cover, but will not exceed ½ mile.

Locate food plots so they will not be buried by excessive snow drifting.

Consider locating food plots to minimize predation effects on the desired species.

Locate food plots on soils suitable for the growth and management of the desired crop.

Avoid locating food plots in field areas with a history of noxious weeds.

Locate food plots where the resulting concentration of wildlife does not conflict with landowner, (including neighboring landowners) objectives, or public safety (i.e. roads).

3. PLANNING CONSIDERATIONS – FOOD PLOT SIZE

Design the total food plot area based on the estimated population of wintering wildlife. One pheasant needs approximately 1 bushel of corn for a 5-month period, while one deer needs approximately 8 bushels. Minimum annual food plot size is ¼ acre. Minimum perennial food plot size is ½ acre. (Small food plots may make desired wildlife more susceptible to predation.) Maximum annual food plot size is 5 acres. Maximum perennial food plot size is 40 acres.

Use multiple food plots dispersed across an area rather than a single large plot, whenever possible.

Food plots configured in a block tend to be more beneficial than narrow strips. Minimum food plot width is 30 feet.

Food plots designed to provide winter cover as well as food should be a minimum of 300 feet wide and planted to tall crops that resist lodging such as corn, milo, or forage sorghum rather than small grains.

4. PLANNING CONSIDERATIONS – FOOD PLOT CROP SELECTION AND ESTABLISHMENT

Refer to tables 1, 2, and 3 for selection of suitable food plot crops.

Winter annual small grains can serve as food plots for two winter seasons. During the first winter after seeding, they provide green forage for big game and waterfowl. After the following growing season, the mature standing grain can provide food for wild turkey, pheasant, and grouse. If managed appropriately, winter small grains may reseed themselves.

Annual food plot crops should be planted at least every other year. For additional food and cover diversity, consider planting half of the plot each year and allowing the other half to produce annual early successional plants (weeds). Rotate the sequence the following year.

Rotating crops within food plots is recommended. Rotations minimize the need for pest control and fertilization. In Vegetative Zones I and II, it may be necessary to include a fallow year in the rotation to accumulate sufficient moisture to produce a crop. Clean-till fallow is not recommended.

Several crop types can be planted together in the same plot. For example, sorghum/sudan hybrids that are tall and stand erect through the winter may be included with proso millet to keep it from lodging or being buried by snow. For best results crops used should have similar planting/germination dates.

Adequately prepare and fertilize food plot seedbeds to ensure crop establishment. For non-legume crops and in the absence of an appropriate soil test, apply 20 lbs. of N in Vegetative Zones I and II and 40 lbs. of N in Vegetative Zones III and IV.

It is recommended that pH and phosphorus levels be given special consideration when establishing legumes. Applications should be based on soil tests and the Nutrient Management Standard (590). When phosphorus levels are low, 20 lbs. of P is recommended during establishment.

Plant food plots at the correct time, according to Tables 1, 2, and 3, to ensure seed production and maturity prior to the end of the growing season and to avoid frost damage.

Utilize appropriate drills and planters for proper seed placement and best crop establishment. No-till planting is recommended whenever possible to minimize erosion, maintain soil condition, and maintain wildlife cover. Legumes and small grains may be seeded by broadcast methods, but seeding rates must be increased by 50% and the seedbed must be disturbed before or after seeding to ensure good seed soil contact.

The food plot crops listed in Tables 1, 2, and 3 are commonly utilized by Nebraska wildlife species. Consult species specific management guides (For example, Nebraska NRCS Biology Technical notes, NRCS Wildlife Habitat Management Institute Leaflets, or Nebraska Game and Parks Commission Wildlife Guides) or a wildlife biologist for optimum food plot crops for specific wildlife species.

Table 1. Plants for Annual Food Plots

These plants can be used alone or as mixtures. When used in mixtures, reduce seeding rates proportionately.

Perennial Food Plant	Recommended Vegetation Zones	Recommended Seeding Rate	Recommended Planting Date
Milo (Sorghum)	Statewide [1]	3 - 4 lb. Per acre	5/25 – 6/15
Forage Sorghum[2]	Statewide	3 - 4 lb. Per acre	5/25 – 6/15
Corn. There are appropriate varieties of dryland corn for zone I, but very limited and not real reliable.	II, III, IV	12 – 18 lb. Per acre	4/20 – 5/20
Sunflowers (Oil seed varieties preferred)	Statewide	2 - 4 lb. Per acre	5/25 – 6/15
Pearl Millet	Statewide	5 - 15 lb. Per acre	5/20 – 6/10
Proso Millet	Statewide	5 - 15 lb. Per acre	5/20 – 6/10
Oats	Statewide	40 - 60 lb. Per acre	3/10 – 4/10
Winter wheat	Statewide	30 - 50 lb. Per acre	9/1 – 9/30
Triticale (winter)	Statewide	50 - 70 lb. Per acre	9/1 – 9/30
Rye	Statewide	30 - 50 lb. Per acre	9/1 – 9/30
Spring wheat	Statewide	60 - 80 lb. Per acre	3/10 – 4/10

[1] Select only short season varieties in the Vegetation Zone I
[2] More beneficial for the cover it provides than for food

Table 2. Introduced Legumes for Perennial Food Plots

These perennial legumes can be used alone or as mixtures. When used in mixtures, reduce seeding rates proportionately. All seeding rates are based on Pure Live Seed (PLS)

Perennial Food Plant	Recommended Vegetation Zones	Recommended Seeding Rate	Recommended Planting Dates
Alfalfa	Statewide	3.0 to 5.0 Lbs./ac	8/1 – 8/30, 11/1 – 5/15
Red Clover	III, IV	2.0 to 4.0 Lbs./ac	8/1 – 8/30, 11/1 – 5/15
Ladino Clover	IV	0.5 to 1.0 Lbs./ac	8/1 – 8/30, 11/1 – 5/15
Alsike Clover	III, IV	0.7 to 1.5 Lbs./ac	8/1 – 8/30, 11/1 – 5/15
Strawberry Clover	III, IV	1.5 to 3.0 Lbs./ac	8/1 – 8/30, 11/1 – 5/15
White Clover	II, III, IV	0.5 to 1.0 Lbs./ac	8/1 – 8/30, 11/1 – 5/15

Table 3. Supplemental Legumes for Perennial Food Plots

The legumes listed here may be included in a perennial food plot seeding when added with one or more Legumes in Table 2. They should not be seeded alone or constitute more than 50% of a mixture. Rates shown are to be reduced in proportion to the number of total species in the mixture.

Perennial Food Plant	Recommended Vegetation Zones	Recommended Seeding Rate	Recommended Planting Date
Sweet Clover	Statewide	2.0 to 4.0 Lbs./ac	8/1 – 8/15, 11/1 – 5/31
Maximillian Sunflower	Statewide	1.0 to 2.0 Lbs./ac	11/1 – 5/31
Canada Milkvetch	Statewide	2.0 to 4.0 Lbs./ac	11/1 – 5/31
Showy Partridgepea	II, III, IV	5.0 to 10.0 Lbs./ac	11/1 – 5/31

5. PLANNING CONSIDERATIONS – FOOD PLOT MANAGEMENT

Control weeds to avoid excessive competition with the planted crop. However the presence of some weeds such as foxtail, giant ragweed, sunflowers, and smartweeds actually benefit wildlife by providing higher protein and earlier maturing seeds than domestic grains.

Annual food plots will not be mechanically disturbed after seeding until seedbed preparation the following spring (or fall for fall seeded crops). Exceptions include weed control activities and periodic efforts to make mature seeds accessible to the target species by knocking down a portion of the foodplot.

When food plots are likely to be used by waterfowl and waterfowl hunters, consult with the US Fish & Wildlife Service regarding management activities that might be prohibited as “baiting”.

6. OPERATION AND MAINTENANCE

Annually monitor wildlife use to determine practice success and to better prescribe future habitat management activities. If all the food in annual plots is used, consider increasing plot size the following year. If less than 40% is used, consider leaving a portion of the food plot unplanted for a year.

It is possible that one wildlife species may over utilize small food plots prior to them being available for the preferred species. For example, deer may consume developing sunflower heads in the summer and prevent them from developing seed for mourning doves in the fall. This may require a larger food plot or use of a different crop.

Perennial food plots may not persist as desired beyond 6 to 10 years. Reapply this practice as needed. Consider applying the Early Successional Habitat Development/Management practice (647) as an alternative to completely destroying the existing vegetation and replanting.

Protect food plots from unplanned haying and grazing. Fencing may be needed to manage grazing.

Control noxious and other undesirable plant species as needed according to recommendations of the local noxious weed control authority.